

BREAST SURGERY



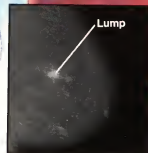
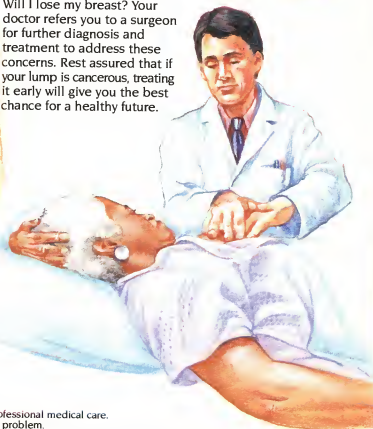
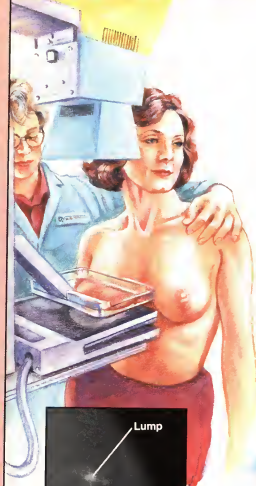
From Biopsy to Reconstruction

WHEN YOU FIND A BREAST LUMP

Every year, thousands of women find a breast lump. For them, and you, fear is an understandable emotion. Most breast lumps, however, aren't serious medical problems—they're simply noncancerous lumps. And, thanks to breast self-examination and today's sophisticated technology, lumps that are cancerous are often diagnosed earlier, when they're smaller and more successfully treated.

Concerns about Cancer

Whether you or your doctor found your breast lump, through breast self-examination or a **mammogram** (breast x-ray), you may be overwhelmed by worries about cancer. A thousand questions may be running through your mind: Do I have cancer? Will I need surgery? Will I lose my breast? Your doctor refers you to a surgeon for further diagnosis and treatment to address these concerns. Rest assured that if your lump is cancerous, treating it early will give you the best chance for a healthy future.



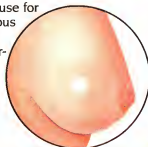
A mammogram (breast x-ray) may reveal a breast lump or other abnormality.

Put Time on Your Side

Although you may be concerned about what lies ahead, you've improved your chances for a healthy future by seeking early treatment. You've put time on your side. Now you have time to talk with friends or family members about treatment options or any concerns you may have. And talking with others may help you see how common breast lumps really are.

Understand breast lumps

Although all lumps must be evaluated, most are noncancerous (**benign**) and are little cause for worry. Others are cancerous (**malignant**) and need prompt treatment. Understanding breast lumps will help you make an informed decision about any treatment you may need.



Have an early evaluation

Mammography and other techniques help diagnose whether your lump is benign or malignant. An evaluation also helps indicate which type of treatment, if any, is most suitable for you.



Know your treatment options

If you need treatment, talking with your surgeon will help you understand your options and make a decision. You'll find that more treatment options are available today than ever before.

This booklet is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

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UNDERSTAND BREAST LUMPS

A normal breast feels "lumpy" and often changes in size or tenderness throughout your menstrual cycle. Benign breast lumps are not "normal," but usually don't require extensive treatment since their cells won't spread outside your breast. Malignant breast lumps do require prompt treatment because their cells may spread to other parts of your body.

Normal Breast Anatomy

A normal breast may feel "lumpy" from mammary glands and other tissues lying under your skin. Your breasts also go through many normal changes. Hormonal changes may make your breasts tender as they swell with fluid before menstruation. Your breasts also change as your weight changes or as you grow older.

Chest muscles located under your breast contract and expand to move your arm. They extend from your breastbone to your collarbone and shoulder.

Axillary lymph nodes under your arm filter fluid from your breast and arm, and help defend your body against infections.

Fibrous tissue encases and supports your entire breast. The more fibrous tissue you have, the firmer your breast.

The nipple near the center of each breast is the outlet for ducts carrying milk.

Fatty tissue is present throughout your breast. The more you have, the softer your breast.

Mammary glands, clustered throughout your breast, empty into a system of ducts. These glands produce milk during pregnancy and breast-feeding.

The areola, a dark circle of skin, surrounds each nipple.

Ducts are tube-shaped structures lined by a single layer of cells. They carry milk during breast-feeding from your mammary glands to your nipples.

Benign Breast Lumps

Most women experience a benign breast lump at some time during their lives. Eight out of ten breast lumps are benign: they are noncancerous lumps that don't invade other tissues. They may develop when your breast changes in response to diet or other influences, such as hormones (called **fibrocystic condition**). That's why benign lumps—like a normal breast—often change in size or tenderness during your menstrual cycle.

Fibrocystic condition

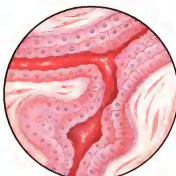
Fibrocystic condition can cause many types of lumps. Breast ducts may enlarge, fill with fluid, and form a round, firm **cyst**, which can grow as large as a golf ball. Or duct cells may multiply abnormally (**hyperplasia**), forming solid, often tender, lumps or areas of thickened tissue. When these over-multiplying duct cells develop unusual features (**atypia**), they may be associated with a higher risk of cancer.

Fibroadenoma

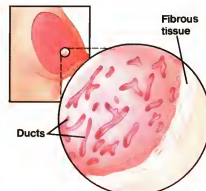
A dense growth of fibrous tissue and ducts is called a **fibroadenoma**. These lumps feel like solid, rubbery marbles. They have smooth edges, are movable, can be multiple and occur in both breasts, and usually don't feel tender.



A **cyst**: the breast duct enlarges and fills with fluid.



Hyperplasia: cells multiply abnormally inside the duct.



A **fibroadenoma**: fibrous tissue and ducts grow abnormally.

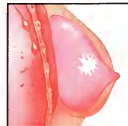
Malignant Breast Lumps

The cells of malignant breast lumps grow uncontrollably and may invade other breast tissue or eventually spread (**metastasize**) beyond the breast. Often single, hard, and painless, these lumps usually don't change with the menstrual cycle. There are many different types, but most develop in mammary ducts or glands. The size of the lump and how far it has spread determine the **stage** of breast cancer, which in turn influences the treatment approach.

Stages of breast cancer



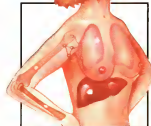
Stage 1. Cancer up to two centimeters (4/5 inch) has grown in one breast. No other tissues are affected.



Stage 2. Cancer is less than five centimeters and may have spread to nearby axillary lymph nodes.



Stage 3. Cancer is larger than five centimeters and usually has spread to the axillary lymph nodes.



Stage 4. From one breast, cancer has spread to other parts of the body, such as the bones, liver, or lungs.

YOUR EVALUATION

Assessing Your Lump

A history and a physical exam help your surgeon begin to evaluate your lump and assess the likelihood that your lump is cancerous. Mammogram and ultrasound tests give pictures of your breast, revealing many abnormalities. Further tests may be necessary to confirm your diagnosis.

Medical History

A medical history gives your surgeon medical information that helps in assessing your risk of cancer. Your surgeon may ask whether family members have had breast cancer. You may also be asked about your menstrual history and about the physical characteristics of your lump.

Physical Exam

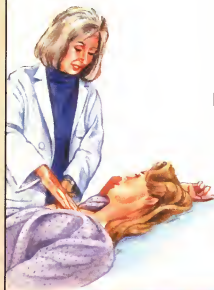
A physical exam helps detect the location, size, and general condition of your breast lump and lymph nodes. Using firm finger pressure, your surgeon examines your breasts and underarm area, looking for lumps, dimpling or puckering of the skin, or nipple secretions.

Mammogram

Unless you've had a recent mammogram, your surgeon may request another. This only slightly uncomfortable breast x-ray is the most helpful technique for spotting lumps too small to be felt. A device must flatten your breast to provide a precise image. Your x-ray is examined for lumps or clusters of tiny calcium deposits (**microcalcifications**), sometimes associated with cancer or benign conditions.

Ultrasound

This test helps your surgeon distinguish between solid lumps and fluid-filled cysts. "Echoes" from painless sound waves are converted into a visual image of the interior of your breast.

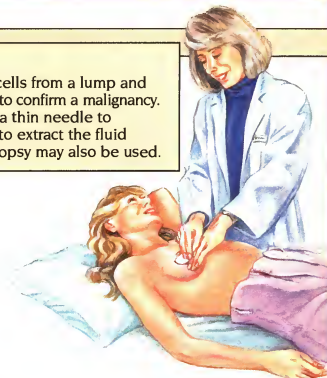


Needle Biopsy

Biopsy is a technique for removing cells from a lump and examining them under a microscope to confirm a malignancy. Fine needle aspiration biopsy uses a thin needle to remove the cells, and is often used to extract the fluid from cysts. Other types of needle biopsy may also be used.

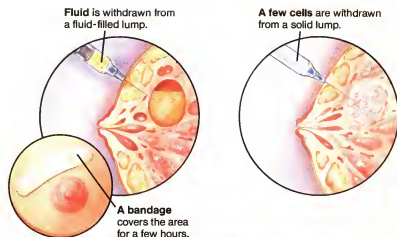
Before Biopsy

A simple procedure similar to taking blood, needle biopsy only takes a few minutes. It is easily performed in a doctor's office. Occasionally, a local anesthetic is used to temporarily numb the breast area.



During Biopsy

After cleansing your breast with an antiseptic, your surgeon inserts a thin needle into the lump and extracts a few cells. If the lump is fluid-filled, your surgeon may be able to remove all the fluid, and no further treatment is likely. If solid cells are removed, they will be evaluated under a microscope to diagnose whether your lump is benign or malignant.



After Biopsy

You may have an adhesive bandage over the area for a few hours, but you can go home immediately after the biopsy is completed. You may have the results before you go home, or your surgeon may call with your diagnosis in a few days. Your surgeon may also discuss with you the need for any further diagnostic tests.



Open Biopsy

A biopsy is always needed to confirm a suspicion of cancer. With open biopsy, your surgeon removes all or part of your breast lump for examination under a microscope. After surgery, a small scar remains, but you'll have little change in the contour of your breast.

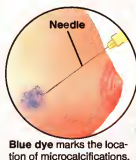


Before Biopsy

Plan ahead with your surgeon before your biopsy, in case your lump is malignant. You can choose either a "one-step" procedure, which combines biopsy and treatment, or a "two-step" procedure, which provides an interval of time between biopsy and treatment. Most open biopsies are done in a hospital, but an overnight stay usually is not needed.

Needle localization

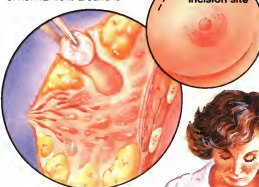
This technique may be used before biopsy to mark the location of microcalcifications or lumps that show up on a mammogram, but are too small to be felt. Using your mammogram as a guide, a radiologist aims a needle at the microcalcifications. Another mammogram confirms that the needle is close by. Then blue dye is injected or a flexible wire is inserted and used by your surgeon as a guide to the microcalcifications.



During Biopsy

Whenever possible, your surgeon makes the incision along the breast contour to help conceal the scar. If the lump is small and easy to retrieve, your surgeon may remove the entire lump and a margin of normal cells around it (**excisional biopsy**). Removing a portion of the lump (**incisional biopsy**) may be done if the lump is large. After removing the lump, your surgeon sutures the incision closed.

An excisional biopsy removes the entire lump and a margin of normal cells around it.



After Biopsy

You may have preliminary results and go home immediately. Or your surgeon may call with results in a day or two. You'll have a dressing and may be asked to wear a bra for a few days—even while you sleep—to help ease any discomfort. Any stitches you have will be removed within a week, and you can usually return to work within a few days.



Your Diagnosis

Hearing your diagnosis may be one of the most difficult things you ever experience. Whether you're told in person or over the phone, have someone with you or know who you can call if you find out your lump is malignant. And remember, treatment will likely allow you to live a healthy life.



If Your Lump Is Benign...

You've received good news, but you'll still need regular follow-up to detect any future lumps. If you're unfamiliar with breast self-examination, ask your surgeon or the American Cancer Society for guidelines. Have checkups and mammograms as often as your surgeon recommends.



Examine your breasts once a month.



A talk with a friend may help you adjust to your diagnosis.

If Your Lump Is Malignant...

This diagnosis is never easy to hear. In fact, it may take awhile for you to fully accept the news. When you're ready, your surgeon will discuss your treatment options with you, which you may, in turn, want to talk over with your family or a friend. You may also need other tests to help determine your best treatment options.



A second opinion may be recommended by your doctor.

Take the Time You Need

You can take the opportunity now to become comfortable with your treatment decision. You may take up to a few weeks to talk with friends, get a second opinion, or learn from other women who have had breast cancer.



TREATMENT OPTIONS: LUMPECTOMY

Many more treatment options are available today for women with breast cancer. **Lumpectomy** is a fairly new procedure that preserves your breast, but removes the lump and some normal tissue around it. Axillary lymph nodes are often removed and examined for signs of cancer (**axillary node dissection**). Also called "wide local excision," lumpectomy is most often recommended for women with a small lump that hasn't spread to the rest of the body. Radiation therapy usually follows lumpectomy to eliminate any remaining cancer cells.

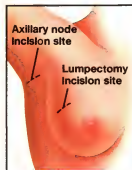
Before Surgery

A few days before your lumpectomy, you may have blood tests or other routine tests to ensure you are healthy enough for surgery. You're likely to have general anesthesia, so you'll be "asleep" during surgery.

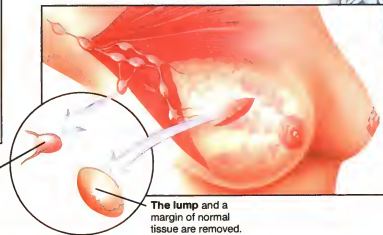


During Surgery

Your surgeon removes the lump and a surrounding margin of normal tissue through one incision. (If you've had an open biopsy, you will already have had the lump removed and may not need further surgery on your breast.) Through a second incision, your surgeon may remove some of the nearby axillary lymph nodes. The incisions are then sutured closed.



Axillary lymph nodes may be removed and examined.



After Surgery

You may spend a few days in the hospital, with drains under your arm to collect any fluid that builds up. You may be taught arm exercises to stretch developing scar tissue, which helps you restore the normal range of motion in your arm. Your surgeon may remove any stitches or drains within a week. You may be fatigued for awhile, but feel close to normal within a few weeks.



Exercise your arm to restore its range of motion.

Radiation Therapy

After surgery, your surgeon may recommend **radiation therapy**, a program of painless x-rays designed to rid your breast or lymph nodes of any remaining cancer cells. It is typically given in five brief treatments every week for five to six weeks. Your radiation therapist will discuss possible side effects, such as fatigue or skin redness. Depending on how you feel, you may continue working during radiation therapy.



Other Therapy

Depending on your type of cancer, your surgeon may recommend other therapy after surgery. A combination of medications, **chemotherapy** destroys cancer cells that may have traveled to other parts of your body. Possible side effects from this treatment are temporary hair loss, nausea, and fatigue. **Hormonal therapy** combats cancers that are sensitive to estrogen, a hormone. You rarely experience side effects with hormonal therapy.



Examine both breasts once a month.

Follow-Up

Continue to examine your breasts monthly, and have a regular checkup and mammogram as often as your surgeon recommends. With fewer lymph nodes, you'll have less protection against infection on the side of your surgery. But you can take simple precautions, like wearing gloves when gardening.

Looking to the Future

Planning and building for the future may help you overcome the worry or depression that sometimes follows surgery. Try to look ahead, remembering that you've done everything you can to get well. Now you have a good chance for a healthy, normal life.



TREATMENT OPTIONS: MODIFIED RADICAL MASTECTOMY

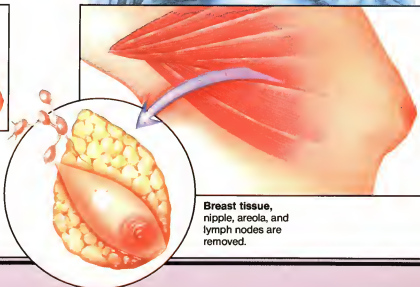
There are several types of **mastectomy** (removal of the breast). A **modified radical mastectomy** removes the breast and axillary lymph nodes. Because chest muscles are left intact, your chest wall contour and arm strength are not affected and recovery is shorter. Two variations of this procedure are **simple mastectomy**, which leaves axillary lymph nodes intact, and **radical mastectomy**, which removes deep chest muscles. Your surgeon will recommend a procedure based on the size of your cancer and how far it has spread. Most mastectomy patients can have breast reconstruction, either at the time of surgery or in the future.

Before Surgery

Since you will have general anesthesia, you'll be "asleep" for the procedure. Before surgery, you will be told about the effects of anesthesia and how you may feel when you awaken after surgery.

During Surgery

Your surgeon makes one incision in your breast to remove your breast tissue, nipple, areola, and some or all of your axillary lymph nodes.



After Surgery

You may spend several days in the hospital after your surgery. At first you'll have a drain at the mastectomy site or under your arm to collect any fluid that builds up. You may also be taught arm exercises to help restore your arm's normal range of motion. Ask your surgeon when you can have a **breast prosthesis**, an artificial breast you can insert in your bra. Your surgeon will remove any stitches or drains within a week. You'll need several weeks to recover fully.



Exercise your arm to restore its range of motion.

Other Therapy

Depending on your type of cancer, you may have other therapy—medications given after surgery to help prevent recurrence. You may have **chemotherapy** if your cancer has spread to your lymph nodes or if you have a high-risk type of cancer. Your surgeon may recommend **hormonal therapy** if you have a type of cancer whose growth is stimulated by estrogen.



Follow-Up

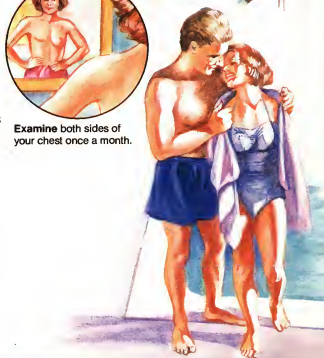
Following treatment, watch for any changes in your breast or chest wall—even on the side of surgery. Continue monthly breast self-exams and have regular checkups and mammograms as often as your surgeon advises. Remember to take precautions with the arm on the side of your body where you had surgery.



Examine both sides of your chest once a month.

Looking to the Future

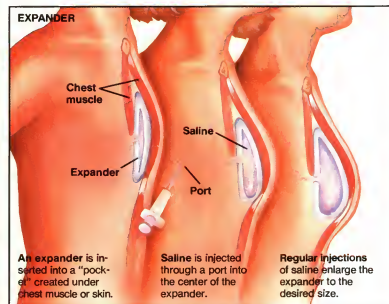
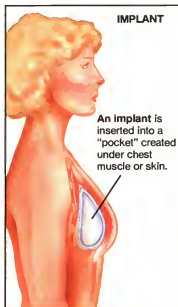
Physical recovery is only part of the challenge following mastectomy. But with the affection and support of loved ones, you can recover fully. It may help to know that there is little to prevent you now from returning to a normal, active life.



A variety of techniques make reconstruction an option for many mastectomy patients. Plastic surgeons today recreate the shape of the breast and match the size and shape of the other breast as closely as possible. Knowing this may be a source of comfort, but talking to your plastic surgeon or others can help you decide whether reconstruction is for you. Some women have reconstruction started at the same time as their mastectomy; others wait several months or even years. Your body type, age, and the treatment you've had will help determine the most suitable type of reconstruction for you.

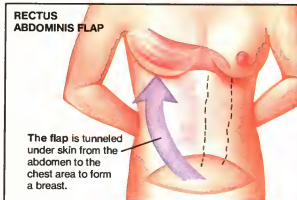
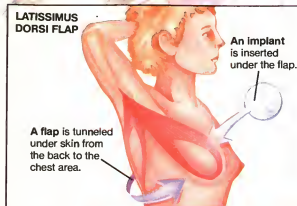
Implants and Expanders

A variety of artificial inserts can recreate the shape of the breast. **Implants** are sacs filled with silicone (a type of plastic) or saline (salt water) and surgically inserted under chest muscle or skin. **Expanders** stretch chest skin to give more allowance on the size of the reconstructed breast. Your plastic surgeon inserts a sac under your chest muscle or skin, then, during office procedures, slowly expands it with regular injections of saline over a period of six weeks to several months.



Tissue Flaps

By moving living tissue from another part of the body to the chest area, plastic surgeons can create a breast shape for women who don't have enough skin or muscle to cover an implant. The **latissimus dorsi muscle flap** brings a portion of back muscle and skin to the chest area. Then an implant is inserted under the flap. A **rectus abdominis muscle flap** combines a "tummy tuck" with reconstruction. It brings abdominal muscle, fat, and skin to your chest. An implant is usually not needed.



Other Surgeries

Other, simpler surgeries can improve the aesthetic appearance of your breasts. Your plastic surgeon molds skin to create a new nipple, and grafts skin from another part of your body or "tattoos" skin to create a new areola. A crease can be created under your breast to make it drape more naturally. And reducing, enlarging, or lifting your other breast can create better symmetry.

AFTER RECONSTRUCTION

A nipple may be molded from chest skin and an areola created.

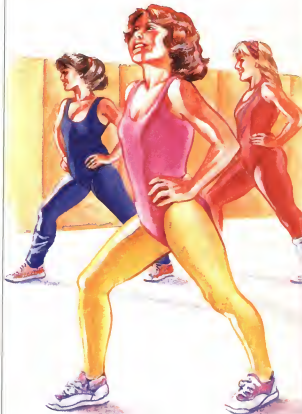
A crease may be created to make the breast drape more naturally.

Follow-Up

Periodic checkups with your plastic surgeon help assess how you are healing and spot any complications that may arise after surgery. It may take you awhile to adjust to the feel of your new breast, but a monthly breast self-exam of both breasts helps you detect any unusual changes that occur on either side of your chest. Remember to have mammograms as often as your surgeon advises.

Beyond Surgery

Most women are pleased with the results of reconstructive surgery. They feel a restored sense of balance, wholeness, and overall well-being. For you, too, this can be one step toward renewed self-confidence that allows you to live life to its fullest.



HOPE AND NEW INSIGHT

Discovering a breast lump—whatever the outcome—can be frightening. But many women find that they can turn the experience into a more positive one. Facing a possibly life-threatening condition has helped them see things differently, bringing more hope, clarity, and value to their everyday activities.



KRAMES
COMMUNICATIONS

MORE THAN INFORMATION . . .

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